

PMC-EF2a

(2.04.02)

**U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION**



RECIPIENT: Newberry Geothermal Holdings LLC, Operator for Northwest Geothermal Company **STATE:** OR
(NGC) and Newberry Geothermal Steam, LLC (NGS)

PROJECT TITLE : Innovative Geothermal Exploration Applications for the Newberry Volcano Site

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000109	DE-EE0002833	GFO-10-175	0

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

C12 Siting, construction, and operation of energy system prototypes including, but not limited to, wind resource, hydropower, geothermal, fossil fuel, biomass, and solar energy pilot projects.

Rational for determination:

DOE and recipient cost share funds will be used by Newberry Geothermal Holdings LLC (Davenport) to demonstrate an exploration strategy that may lead to the commercial development of geothermal energy on the US Forest Service Deschutes National Forest, Bend-Fort Rock District (USFS), Oregon. Davenport plans to drill up to 12 temperature gradient wells and a slimhole deep exploration well to develop the Newberry Volcano geothermal resource with DOE funds. Currently the Bureau of Land Management (BLM) is the lead agency conducting an Environmental Analysis (EA) with the US Forest Service (USFS) and DOE as cooperating agencies. The project would be divided into seven tasks:

Task 1.0 Gravity surveys

Task 2.0 Magneto-telluric (MT) surveys

Task 3.0 Seismic Surveys

Task 4.0 Temperature gradient well drilling:

Newberry would drill up to 12 temperature gradient wells to test the thermal component of the models generated from the cumulative gravity, magneto-telluric and seismic data.

Task 5.0 Comprehensive modeling of cumulative data

Stagegate Decision Point

Data analysis and summary of findings: geological data and core sampling analysis obtained from Task 5.0 would be summarized and a recommendation would be presented to management and DOE from our technical experts. The stagegate decision would be based upon the likelihood of identifying a potential geothermal resource with deep exploration drilling using the geologic data and analysis available from the project to select a well site.

Based on a "go" decision, site location and well specifications would be finalized by our engineering and geological teams.

Task 6.0 Slimhole/deep exploration well

A slimhole or deep exploration hole (collectively referred to as a "slimhole well") would be drilled to a depth of 7,000' to 12,000'. The final specifications (depth, diameter, etc.) for this well would be dependent upon the proposed well location and other analysis from Task 5.0.

Task 7.0 Project management and reporting

This proposed project has the potential to impact surface and subsurface resources and therefore an Environmental Assessment is required (C12). DOE must analyze the construction and installation of up to twelve thermal geothermal wells and one slimhole exploration well with associated roads in funding the drilling for the Innovative Geothermal

Exploration Applications for the Newberry Volcano Site project for Davenport according to the National Environmental Policy Act (NEPA). Existing and potential impacts are unknown at this time. Per the DOE NEPA implementing regulations (Appendix C to Subpart D to 10 CFR Part 1021 - C12, as noted above), preparation of an Environmental Assessment is required prior to allowing federal funds for this proposed project.

Condition: Davenport is restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternative prior to DOE providing either a NEPA clearance or a final NEPA decision regarding the project.

Davenport is authorized to initiate the preparation of an EA by a third-party contractor, consistent with NEPA implementing regulations. BLM, Davenport, and third-party contractor have entered into a Memorandum of Agreement (MOA) defining the scope of services to be completed by the third-party contractor on behalf of BLM (the lead agency).

NEPA PROVISION

DOE has not made a NEPA determination for this award, and funding for this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

Davenport is restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternative prior to DOE providing either a NEPA clearance or a final NEPA decision regarding the project.

This restriction does not preclude you from:

Davenport is authorized to initiate the preparation of an EA by a third-party contractor, consistent with NEPA implementing regulations. BLM, Davenport, and third-party contractor have entered into a Memorandum of Agreement (MOA) defining the scope of services to be completed by the third-party contractor on behalf of BLM.

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

NEPA Compliance Officer

Date: _____

3/3/10

FIELD OFFICE MANAGER DETERMINATION

☒ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

- ☐ Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- ☒ Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____

Field Office Manager

Date: _____

3/4/10